Article:	**Evaluation of Learning Outcomes: A Case Study of Secondary Level Compulsory English Textbooks of Punjab Board**	Journal QR
Author(s):	Amna Fayyaz[1], Haseeb ul Hasaan[2], Kausar Parveen[3]	
Affiliations	[1]The University of Faisalabad, Pakistan [2]Government Primary School for Boys Shareef Pura Kamoke, Pakistan [3]Govt. College Women University, Faisalabad, Pakistan	Article QR
Pub. Online:	Spring 2021	
Article DOI:	https://doi.org/10.32350/jcct.31.05	Amna Fayyaz
Article History:	Received: Feb 9, 2021 Revised: May 26, 2021 Accepted: May 26, 2021	Indexing
To cite this article:	Fayyaz, A., Haseeb ul Hassan & Perveen, K. (2021). Evaluation of learning outcomes: A case study of secondary level compulsory English textbooks of Punjab board. *Journal of Communication and Cultural Trends, 3*(1), 66–85. Crossref	
Copyright Information	This article is open access and is distributed under the terms of Creative Commons Attribution 4.0 International License.	

A publication of the
Institute of Communication and Cultural Studies
University of Management and Technology, Lahore, Pakistan

Evaluation of Learning Outcomes: A Study of Secondary Level Compulsory English Textbooks of Punjab Board, Pakistan

Amna Fayyaz[1], Haseeb ul Hasaan[2], Kausar Parveen[3*]

[1]The University of Faisalabad, Pakistan
[2]Government Primary School for Boys Shareef Pura Kamoke, Pakistan
[3]Govt. College Women University, Faisalabad, Pakistan

Abstract

This study examines the learning outcomes of selected English textbooks at the cognitive level. The aim of the present study is to explore the levels of criticality in the learning outcomes of compulsory English textbooks (Grade 6-10) published by the Punjab Board, based on which their activities and exercises are designed. Learning outcomes of compulsory English textbooks (Grade 6-10) were analyzed following the Critical Thinking Evaluation Model (CTEM). Post-use evaluation of the learning outcome of compulsory English textbooks (Grade 6-10) has not been carried out yet. To fill this gap, selected English textbooks were evaluated in terms of their critical thinking skills based learning outcomes. The evaluated textbooks were selected through stratified sampling. A mixed-method approach including both qualitative and quantitative data analysis was used to make the findings more reliable and valid. Exploratory research design was adopted to explore the levels of criticality in compulsory English textbooks (Grade 6-10). The totality of results showed that the 'implementation' level of CTEM was the most frequent among learning outcomes. The second most frequent level of criticality was 'background knowledge' and the third most frequent was 'apprehension'. 'Anatomization' and 'creativity' levels of criticality appeared less frequently among the learning outcomes of compulsory English textbooks, while the 'conceptualization' level of CTEM was the least frequent. It was found that the learning outcomes of compulsory English textbooks (Grade 6-10) were not designed to enhance critical evaluation and self-directed learning. The results are beneficial for textbook designers, textbook evaluators, examiners, paper setters, teachers, students, and teacher trainers. This study contributes to the development of the English language teaching system in public schools.

Keywords: CTEM (Critical Thinking Evaluation Model), English textbooks, learning outcomes

---

[*]Corresponding Author: amna.fayyaz82@gmail.com

Introduction

Textbooks are crucial for any sort of learning including language learning. Skowronski and Hinchman (2002) stated that textbooks are a major component in any kind of language program. Hutchinson and Torres (1994) said that the relevant textbooks are crucial for teaching and learning. Therefore, the learning outcomes of textbooks should be designed according to the needs of the students. Tomlinson (2011) stated that textbooks comprise an input for the learners through which they can practice. Textbooks play an important role in the teaching and learning process (Cunningsworth, 1995; Haycraft, 1998; Sheldon, 1988). Tyson (1997) stated that for inexperienced teachers and teachers who have no time to prepare lesson plans textbooks are a crucial tool; therefore, for prescribing a useful textbook evaluation is necessary. Learning outcomes provide a clear picture of the success of a particular course or program (Mahajan & Singh, 2017, p.66). Keeping in view the above mentioned points, this study strives to determine the levels of Critical Thinking Evaluation Model (CTEM) based on which the learning outcomes of compulsory English textbooks (Grade 6-10) have been designed. English textbooks taught from Grade 6 to Grade 10 were selected for analysis because these are the transitory levels of education whereby children move towards complex learning.

Purpose and Objectives of the Study

The main purpose of this study is to explore the levels of criticality in the learning outcomes of compulsory English textbooks (Grade 6-10). It has the following three objectives:

a. To identify the levels of criticality in the learning outcomes of compulsory English textbooks (Grade 6-10).
b. To explore the frequency distribution of critical thinking skills based learning outcomes in compulsory English textbooks (Grade 6-10).
c. To highlight the most and least frequently used elements of 'CTEM' in compulsory English textbooks (Grade 6-10).

Statement of the Problem

Rea-Dickens and Germaine (1992) stated that evaluation is a process that highlights the appropriateness of the evaluated object. Effective learning is achieved with continuously developing textbooks and it needs continuous research. Many researches have been conducted to evaluate the textbooks' activities, exercises, questions, and learning objectives (Parsaei et al., 2017, Riazi & Mosalanejad 2010, Naseer et al., 2020, Mahmood et al., 2020., Fayyaz, 2019). Post-use evaluation of the learning outcomes of compulsory English textbooks (Grade

6-10) has not been carried out yet in Pakistan. To fill this gap, the current research was conducted to highlight the levels of criticality (background knowledge, apprehension, conceptualization, implementation, anatomization, critical evaluation, creativity and self-directed learning) in the post-use learning outcomes of compulsory English textbooks (Grade 6-10). This study is useful for curriculum designers to set the learning outcomes of these textbooks appropriately and according to the needs of the rapidly developing era.

Significance of the Study

The present study will help syllabus designers to prepare more effective English textbooks in terms of their critical thinking skills based learning outcomes and the activities and exercises based on these outcomes. This research can also contribute in creating a balance between LOTS and HOTS-based learning outcomes of English textbooks.

Research Questions

1. *What is the frequency distribution of critical thinking skills based learning outcomes in compulsory English textbooks (Grade 6-10)?*

   a. What is the frequency of critical thinking skills based learning outcomes in Grade 6 English textbook?
   b. What is the frequency of critical thinking skills based learning outcomes in Grade 7 English textbook?
   c. What is the frequency of critical thinking skills based learning outcomes in Grade 8 English textbook?
   d. What is the frequency of critical thinking skills based learning outcomes in Grade 9 English textbook?
   e. What is the frequency of critical thinking skills based learning outcomes in Grade 10 English textbook?

2. *What are the elements of Critical Thinking Evaluation Model (CTEM) used in determining the learning outcomes of compulsory English textbooks (Grade 6-10)?*
3. *To what extent the learning outcomes of compulsory English textbooks (Grade 6-10) are based on CTEM?*

Literature Review

Theoretical Framework

Criticality based learning outcomes of a syllabus are crucial in enabling the learners to make appropriate decisions, to solve real-life problems, to implement

educational theories in real-life situations, and to promote the society. Fayyaz (2019, p 6-19) proposed a model namely the Critical Thinking Evaluation Model (CTEM) for the evaluation of exercises, activities, learning outcomes, questions, and statements in textbooks for the development of curriculum, critical thinking skills based lesson plans, and so on. This model consists of the following eight levels of critical thinking skills:

1) Background Knowledge
2) Apprehension
3) Conceptualization
4) Implementation
5) Anatomization
6) Critical Evaluation
7) Creativity
8) Self-directed Learning / Independent Learning

This model is useful to identify the levels of critical thinking skills in learning outcomes, questions, activities, exercises, objectives of lesson plans, objectives and activities of course outlines, and so on. A modified vocabulary list of CTEM is helpful to highlight the elements of critical thinking skills for post-use, in-use and pre-use evaluation of textbooks. Visual representation of CTEM is given below.

Figure 1

CTEM (Critical Thinking Evaluation Model)
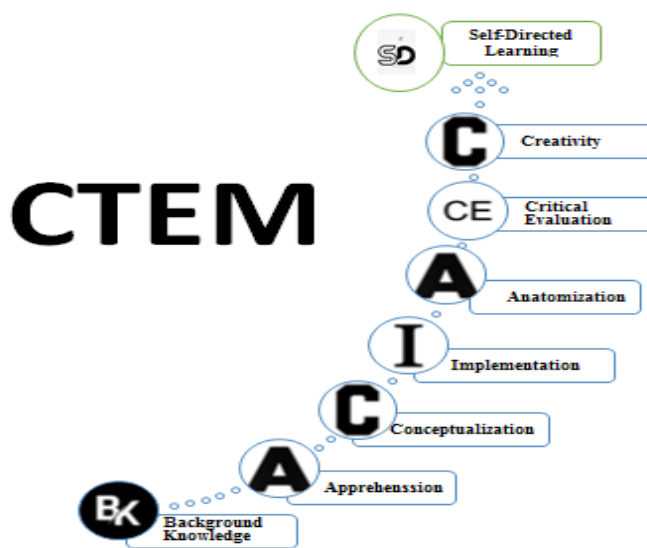
CTEM is a developed model based on which critical thinking skills based learning outcomes, activities, exercises, questions, and statements in textbooks can be designed.

Historical Background

The analysis of the learning objectives of ESP books designed for the students of dentistry, pharmacology, and medicine taught in IUMS using Bloom's taxonomy showed that there is no balance between the application of critical thinking skills (Parsaei et al., 2017). Riazi and Mosalanejad (2010) examined the learning objectives of three high school textbooks and one pre-university textbook by developing a coding scheme on the basis of Bloom's taxonomy. The results indicated that in all grades lower-order critical thinking skills were more prevalent as compared to the higher-order critical thinking skills.

Olimat (2015) evaluated the questions in Action Pack English textbook of the 7th, 8th, 9th and 10th grade using Bloom's revised taxonomy. The results indicated that the level 'background knowledge' was found with a higher frequency in these textbooks. Application and synthesis level questions in the 10th grade English textbook were found to have a higher frequency than 7th, 8th and 9th grade textbooks.

Activities, exercises, questions, and leaning outcomes of a textbook play a crucial role in teaching and learning cognitive and critical thinking skills. Nakkam and Khamoja (2020) selected two Moroccan ELT textbooks (Ticket to English 2 and Gateway to English 2) to analyze their reading comprehension questions using a checklist based on Bloom's taxonomy. The results indicated that 77% of the total questions in 'Ticket to English 2' were designed to assess the students' lower-order critical thinking skills and only 23% questions were designed to assess their higher-order critical thinking skills. Similarly, 84.12% of the total questions in 'Gateway to English 2' were based on the lower-order critical thinking skills and only 14.78% questions were designed to evaluate the higher-order critical thinking skills of students.

Naseer et al. (2020) evaluated the textbook of Pakistan Studies (produced by Punjab Textbook Board for Grade 9) using a checklist based on Bloom's revised taxonomy to check the text-based questions and tasks requiring critical thinking skills. Text-based questions were also analyzed by categorizing them according to the Socratic taxonomy. The results indicated that the textbook of Pakistan Studies was not conducive towards enhancing the critical thinking skills and merely one question required the use of higher-order critical thinking skills.

Mahmood et al. (2020) used Bloom's taxonomy to evaluate the exercises of 'Book I (English) of Federal Textbook Board and KPK Textbook Board' of matriculation. The results showed that the cognitive domain was not followed uniformly in the selected textbook. The findings also indicated that some of the questions were not according to the content of unit, although the sublevels of the cognitive domain were incorporated in 'Book I (English) of Federal Textbook Board and KPK Textbook Board'. However, they were not incorporated in a systematic way.

Fayyaz (2019) evaluated the exercises and activities of compulsory English textbooks (Grade 6-10) using CTEM to check the various levels (background knowledge, apprehension, conceptualization, application, anatomization, critical evaluation, creativity and self-directed learning / independent learning) of critical thinking skills. The findings revealed that the exercises and activities of these textbooks were not designed to create a balance between the use of lower-order and higher-order critical thinking skills. Self-directed learning / independent learning level was totally missing in the exercises and activities of the selected textbooks.

Textbooks are the main source of learning and teaching different skills, therefore, they should be designed keeping in view the learners' needs. Badawy et al. (2016) conducted a study to evaluate the levels of criticality in a higher education textbook. The researchers used the chapter wise objectives of the selected textbook as sample. They analyzed the objectives of the selected textbook by following the list of verbs set by the Quality Management of the Institute of Statistical Studies and Research (ISSR), Cairo University, Egypt. The findings of their study indicated that the learning objectives made with synonymous verbs occurred more frequently than the objectives with actual verbs.

The evolution of textbooks has become crucial for effective teaching and learning. Fatima et al. (2015) evaluated 'Step Ahead 2' and 'Step Ahead 3' textbooks used for Grade 7 and Grade 8 respectively in the Pakistani schools. A checklist based on McGrath's 2002 methodology was used to make the results more effective. The evaluation of selected textbooks was based on the level of authenticity, types of activities, variety of topics, the relationship of topic with the learner's interest, the material used to improve the learner's language, grammar, vocabulary, types of activities, and tasks. The results showed that four basic skills (speaking, reading, listening, and writing) were not equally emphasized in the above textbooks. Cultural aspects were also not matched with the target culture. However, the occurrence of topics, themes, and tasks related to real-life situations were satisfactory in the given textbooks.

Textbook is an important medium of teaching and learning, so it must be valid and reliable in terms of its contents, themes, tasks, activities, and exercises. Rahmawati (2018) evaluated the textbook 'Primary English of a Second Language' using a checklist consisting of the features of a good English textbook. The above textbook was analyzed for its objectives, aims, teaching and learning procedures, activities, exercises, and lexical choices. The results revealed that the objectives of the selected English textbook matched the criteria of a good English textbook, while the exercises in the given textbook did not match the criteria of a good English textbook because group or pair work exercises were absent. Vocabulary or lexical aspects (no new vocabulary) were also different from the criteria of a good English textbook.

Research Method and Methodology

Method and Research Design

A mixed-method approach of data analysis was used. Qualitative data analysis was used to highlight the features or elements of CTEM while evaluating the learning outcomes of compulsory English textbooks (Grade 6-10). Quantitative data analysis was used to find out the frequency of critical thinking skills based learning outcomes of the selected textbooks. Textual analysis was conducted to investigate whether the learning outcomes of selected English textbooks were designed to enhance the critical thinking skills of students or not.

Population and Sampling

Stratified sampling technique was adopted to analyze the learning outcomes of the compulsory English textbooks (Grade 6-10) included in the sample for data analysis.

Data Collection Procedure

The process of data collection comprised the following steps:

a) Collection of compulsory English textbooks (Grade 6-10) published by the Punjab Textbook Board.
b) Conversion of the PDF files of compulsory English textbooks into MS Word files using an online converter.
c) Clarification of all points of compulsory English textbooks (Grade 6-10) except the learning outcomes.
d) Conversion of the MS Word files including the learning outcomes into text files to assess the frequency of criticality based learning outcomes through Antconc.

Instrumentation

Critical Thinking Evaluation Model (CTEM) having eight levels including background knowledge, apprehension, conceptualization, implementation, anatomization, critical evaluation, creativity, and self-directed learning (see Appendix) was used to evaluate the post-use learning outcomes of compulsory English textbooks (Grade 6-10). Antconc 3.2.4W was used to find out the frequency of cognitive skills based learning outcomes. MS Excel was used to show the results through graphs and tables.

Data Analysis

Learning outcomes of compulsory English textbooks (Grade 6-10) were analyzed using CTEM. The results illustrate the frequency distribution of critical thinking skills based learning outcomes of these textbooks. It was found that the elements of CTEM were used to design their learning outcomes.

Frequency Distribution of Criticality Based Learning Outcomes

Critical thinking skills based learning outcomes of compulsory English textbooks (Grade 6-10) were examined and it was found that the frequency of the different levels of critical thinking skills varied for each textbook. The figure below presents the percentage of the different levels of cognitive skills used in these textbooks.

Figure 2

Presentation of Criticality Based Levels in Compulsory English Textbooks (Grade 6-10)
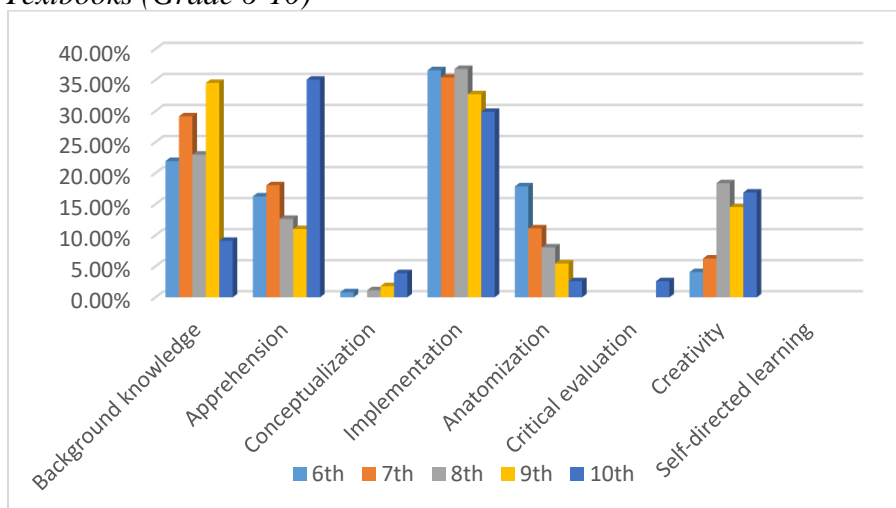
Grade 6 English textbook entailed a total of 123 learning outcomes. Of the total learning outcomes, 36.58% were at the 'implementation' level of criticality. This level appeared with the highest frequency. Learning outcomes at the level of 'background knowledge' were 21.95% of the total, their percentage was 17.88% at the 'anatomization' level, 16.26% at the 'apprehension' level, 4.06% at the 'creativity' level, and only 0.81% learning outcomes were designed to enhance the conceptual ability of the learners of 6th grade. Two levels of critical thinking, that is, 'critical evaluation' and 'independent learning or self-directed learning' were totally missing in the learning outcomes of compulsory English textbook of Grade 6.

Of the total learning outcomes of Grade 7 compulsory English textbook, 35.41% were at the 'implementation' level of CTEM, 29.16% were at the level of 'background knowledge', 18.05% were at the 'apprehension' level, 11.11% were at the 'anatomization' level and learning outcomes aimed to develop the creative ability of learners were only 6.25%. The 'implementation' level was the most frequent while the 'creativity' level was the least frequent. 'Critical evaluation' and 'independent learning or self-directed learning' levels were absent in the learning outcomes of Grade 7 English textbook.

Of the total learning outcomes of Grade 8 compulsory English textbook, 36.78% were at the 'implementation' level, 22.98% were at the level of 'background knowledge' and only 18.39% were intended to enhance the creative ability of learners. Moreover, 12.64% were at the 'apprehension' level, 8.04% were at the 'anatomization' level and only 1.14% of the total learning outcomes were about the concepts of the topics. 'Critical evaluation' and 'independent learning' or 'self-directed learning' levels were absent in the learning outcomes of Grade 8 English textbook. The 'implementation' level was the most frequent and the 'conceptualization' level was the least frequent level in the learning outcomes of the above textbook.

Among the total learning outcomes of Grade 9 compulsory English textbook, the most frequent level was 'background knowledge' with 34.54% of learning outcomes and the least frequent level was 'conceptualization' with only 1.81% of the total learning outcomes. Learning outcomes at the 'implementation' level were 32.72%, while 14.54% were at the 'creativity' level, 10.99% were at the 'apprehension' level, and 5.45% were at the 'analysis' level. The analysis of Grade 9 compulsory English textbook yielded different results from 6th, 7th, and 8th grade English textbooks.

The analysis of Grade 10 compulsory English textbook showed that learning outcomes at the 'apprehension' level appeared with the highest percentage of 35.06%, as compared to the other levels of CTEM. Learning outcomes at the 'implementation' level of critical thinking skills were 29.87%, while 16.88% were at the 'creativity' level, 9.09% were at the 'background knowledge' level and 3.89% were at the 'conceptualization' level. Moreover, learning outcomes at each one of the 'anatomization' and 'critical evaluation' levels were also 3.89%, while 'independent learning' or 'self-directed learning' levels were completely absent in the learning outcomes of 10th grade compulsory English textbook. The results showed that the most frequent level was 'apprehension' and the least frequent levels were 'anatomization' and 'conceptualization'.

The results showed that the 'implementation' level of CTEM was dominant in the learning outcomes of compulsory English textbooks (Grade 6-10). The second most prominent level was 'background knowledge' and the third most prominent level was 'apprehension'. The level 'creativity' appeared less frequently in the learning outcomes of all textbooks as compared to the above levels, while the levels 'anatomization' and 'conceptualization' were the least prominent levels. The level 'critical evaluation' was present only in the 10th grade English textbook with the minimum frequency. 'Independent learning' or 'self-directed learning' levels were totally missing from the learning outcomes of the selected textbooks.

Elements of Criticality Used in Compulsory English Textbooks (Grade 6-10)

The elements used to enhance or check the ability to put theory into practice were mostly used in compulsory English textbooks (Grade 6-10). Elements of 'background knowledge' level were used with the second highest frequency in the learning outcomes of these textbooks. The analysis of 6th, 7th, and 8th grade compulsory English textbooks presented almost similar results. On the other hand, 9th and 10th grade compulsory English textbooks manifested the same pattern in terms of criticality. The results indicated that different elements or action verbs of CTEM were used in the various textbooks. The table below presents the list of elements used in these textbooks.

The table shows that the selected textbooks varied significantly from each other in terms of critical thinking skills based learning outcomes. Grade 7 compulsory English textbook had the minimum number of the elements of criticality in its learning outcomes, while Grade 6 compulsory English textbook had more learning outcomes with criticality based elements as compared to any other compulsory English textbook. Some of the elements were found to be similar in various textbooks such as 'recognize, identity, write, answer, illustrate, differentiate, make,

analyze, demonstrate, and answer'. Moreover, 24 elements of criticality were used in the Grade 6 compulsory English textbook, 16 elements of criticality were used in the Grade 7 compulsory English textbook, 21 elements of criticality were used in the Grade 8 compulsory English textbook, 18 elements of criticality were used in the Grade 9 compulsory English textbook, and 23 elements of criticality were used in the Grade 10 compulsory English textbook.

Table 1

*List of elements used in various compulsory English textbooks (Grade 6-10)*

6	7	8	9	10
Recognize	Recognize	Recognize	Recognize	Recognize
Identify	Identify	Identify	Identify	Identify
Show	Write	Recite	Describe	State
Write	Answer	Describe	Read	Fill
Answer	Illustrate	read	Paraphrase	Illustrate
Illustrate	Express	Retell	Demonstrate	Summarize
Express	Summarize	Express	Respond	Explain
Summarize	Demonstrate	Choose	Interpret	Paraphrase
Compare	Discuss	Demonstrate	Relate	Demonstrate
Demonstrate	Locate	Respond	Develop	Determine
Distinguish	Apply	Deduce	Utilize	Locate
Locate	Find	Develop	Practice	Deduce
Interpret	Use	Utilize	Use	Change
Relate	Support	Change	Analyze	Practice
Apply	Analyze	Use	Organize	Use
Develop	Plan	Transfer	Plan	Produce
Use	Develop	Analyze	Construct	Support
Support		Infer	Organize	Analyze
Analyze		Propose	Write	Differentiate
Classify		Differentiate		Evaluate
Examine		Make		Support
Differentiate		Write		Make
Plan				Synthesize
Make				Write
Write				

Representation of CTEM in the Learning Outcomes of Compulsory English Textbooks (Grade 6-10)

The overall analysis of the selected textbooks highlighted the 'implementation' level of CTEM as the most frequent in their learning outcomes. The 'background knowledge' level was ranked as the second most frequent level and the third most frequent level was 'apprehension'. 'Anatomization' and 'creativity' levels of CTEM were found to be less frequent as compared to the above levels. The least frequent levels of CTEM were 'conceptualization' and 'critical evaluation' in all textbooks. The figure below shows the total results of the critical thinking skills based learning outcomes of compulsory English textbooks (Grade 6-10).

Figure 3

Representation of CTEM levels in compulsory English textbooks (Grade 6-10)
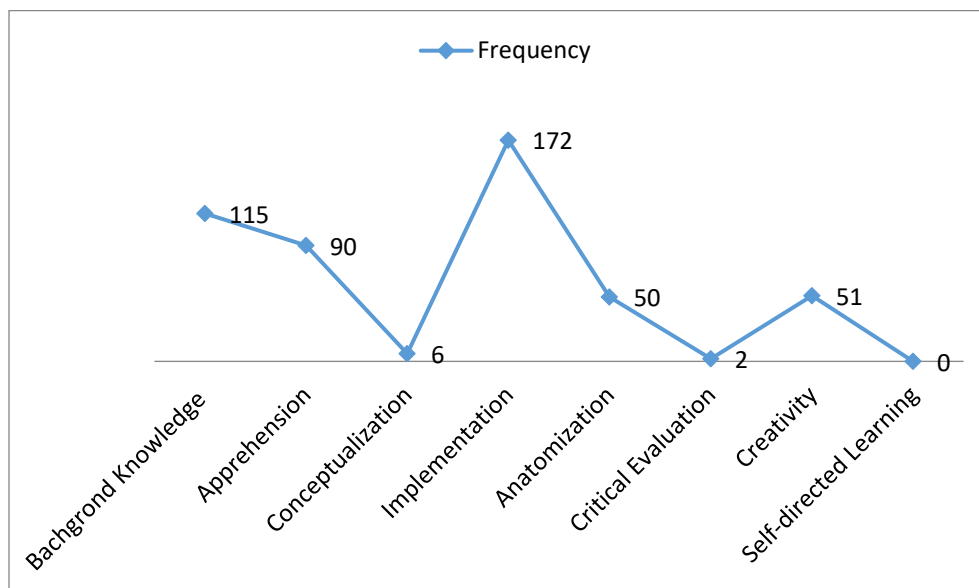
Total results depicting the distribution of the levels of critical thinking skills in the learning outcomes of compulsory English textbooks (Grade 6-10) showed that the 'implementation' level of CTEM was the most frequent with 172 learning outcomes. The level 'background knowledge' appeared with a frequency of 115 learning outcomes, while the 'apprehension' level appeared 90 times in the learning outcomes of the selected textbooks. The frequency of learning outcomes at the 'creativity' level was 51 and their frequency at the 'anatomization' level was 50, respectively. The 'conceptualization' level appeared with a frequency of 6 learning

outcomes and the level 'critical evaluation' appeared only in the Grade 10 compulsory English textbook.

Discussion

Richards ([2014](#)) stated that post-use evaluation provides information which helps to decide whether the evaluated object or book is useful or not. Based on the evaluation, some changes are made in the evaluated object or book because curriculum, syllabus, and textbooks need to be revised and updated in order to fulfill the requirements of the rapidly developing science, technology, and trends across the world. These changes result not only in the revision of the contents of the textbooks but also of their presentation (Mahmood, [2009](#), p.158). The present study examined the learning outcomes of compulsory English textbooks (Grade 6-10) to highlight the levels of criticality in them because the process of teaching and learning relies heavily on these outcomes. Tikhonova and Kudinova ([2015](#)) stated that sophisticated thinking is a balance between well-developed lower-order and higher-order thinking skills. However, the findings of the current study showed that the 'implementation' level of cognitive skills was most prominent in the learning outcomes of the selected textbooks, which shows that lower-order thinking skills based learning outcomes were the focus of syllabus designers. Fayyaz ([2019](#)) introduced eight levels of critical thinking skills within the Critical Thinking Evaluation Model (CTEM) for the step by step development of the cognitive skills of learners through textbooks. Syllabus designers must focus to set the learning outcomes by following the features of each level of critical thinking skills. However, this research found that the 'self-directed learning' level of CTEM was totally missing from the learning outcomes of compulsory English textbooks (Grade 6-10).

Conclusion

The findings of the given research showed that the compulsory English textbooks (Grade 6-10) need to be improved with respect to criticality-based learning outcomes in order to enhance the critical thinking skills of the learners. It was found that different compulsory English textbooks encompassed different levels of criticality-based skills. Moreover, it was also found that the selected textbooks were not designed for the most part to promote higher-order critical thinking skills. Based on the above findings, it is concluded here that syllabus designers must be trained to set higher-order critical thinking skills based learning outcomes for designing English textbooks in order to promote higher-order critical thinking skills of the learners through these textbooks.

Recommendations

For the development of textbooks and to facilitate the process of teaching, learning, and assessment, post-use evaluation of the learning outcomes of course outlines, lesson plans, textbooks, and examination questions should be carried out to explore the levels of criticality. CTEM is useful for the pre-use, in-use and post-use evaluation of textbooks, syllabus, curriculum, examination papers, and other teaching and learning tasks in order to evaluate their criticality.

Implications of the Study

The current study is useful for syllabus designers to develop the selected textbooks further for teaching and learning criticality through them.

References

Badawy, M., Abd El-Aziz, A. A., & Hefny, H. A. (2016). Analysis of learning objectives for higher education textbooks using text mining. In *2016 12th International Computer Engineering Conference (ICENCO)* (pp. 202-207). IEEE. https://doi.org/10.1109/ICENCO.2016.7856469

Cunningsworth, A. (1995). *Choosing your course book*. Macmillan.

Evaluating a Text Book. (2014, February 10). *Professor Jack C. Richards.* https://www.professorjackrichards.com/evaluating-text-book/

Fatima, G., Shah, S. K., & Sultan, H. (2015). Textbook analysis and evaluation of 7th & 8th Grade in Pakistani context. *International Journal of English Language Teaching*, *3*(4), 79-97.

Fayyaz, A. (2019). *Evaluation of Criticality in Exercises and Activities of English Textbooks at Secondary Level*. Riphah International University Faisalabad. https://www.researchgate.net/publication/351993078_AN_EVALUATION_OF_CRITICALITY_IN_EXERCISES_AND_ACTIVITIES_OF_ENGLISH_TEXTBOOKS_AT_SECONDARY_LEVEL

Haycraft, J. (1998). *An introduction to English language teaching*. Longman Publisher.

Hinchman, K. A. (1992). How teachers use the textbook: Lessons from three secondary school classrooms. *Reading in the content areas: Improving Classroom Instruction*, *3*, 282-293.

Hutchinson, T., & Torres, E. (1994). The textbook as agent of change. *ELT Journal, 48*(4), 314-328.

Mahmood, K. (2009). Indicators for a quality textbook evaluation process in Pakistan. *Journal of Research and Reflections in Education*, 3(2), 158-176.

Mahajan, M., & Singh, M. K. S. (2017). Importance and benefits of learning outcomes. *IOSR Journal of Humanities and Social Science*, 22(03), 65-67.

Mahmood, A., Mahmood, S., & Butt, M. W. (2020). Comparative Study of English Textbook I of Federal and Khyber Pakhtunkhwa Boards at SSC Level: Application of Bloom's Taxonomy. *Kashmir Journal of Language Research*, 23(2), 23–38.

Nakkam, J., & Khamoja, A. (2020). Evaluation of reading comprehension questions in ELT Moroccan textbooks. *International Journal for Innovation Education and Research*, 8(6), 315–324.

Naseer, H., Muhammad, Y., & Masood, S. (2020). Critical Thinking Skills in a Secondary School Pakistan Studies Textbook: A Qualitative Content Analysis. *SJESR*, 3(4), 84-95. https://doi.org/10.36902/sjesr-vol3-iss4-2020(84-95)

Olimat, D. M. (2015). Evaluation of learning objectives in Iranian High-School and Pre-University English Textbooks using bloom's taxonomy. *Journal of Education and Practice, 6*(28), 152–159.

Parsaei, I., Alemokhtar, M. J., & Rahimi, A. (2017). Learning objectives in ESP books based on Bloom's Revised Taxonomy. *Beyond Words*, 5(1), 14-22. https://doi.org/10.33508/bw.v5i1.1112

Rahmawati, L. (2018). *A content analysis of the English textbook" Primary English as a Second Language"* (Doctoral dissertation) UIN Sunan Ampel Surabaya.

Rea-Dickens, P. & Germaine, K. (1992). Evaluation. Oxford: Oxford University Press.

Sheldon, L. E. (1988). Evaluating ELT textbooks and materials. *ELT Journal*, 42(4), 237-246. https://doi.org/10.1093/elt/42.4.237

Riazi, A. M., & Mosalanejad, N. (2010). Evaluation of learning objectives in Iranian High-School and Pre-University English textbooks using bloom's taxonomy. *TESL-EJ*, 13(4). 1-16.

Skowronski, K. (2000). Textbooks use and classroom practices: A close look at one classroom. *English Language Teaching Journal, 2*(2), 546-575

Tikhonova, E., & Kudinova, N. (2015, August). Sophisticated thinking: Lower order thinking skills. In *Proceedings of the 2nd International Multidisciplinary Scientific Conferences on Social Sciences and Arts* (Vol. 2, pp. 352-360). Russian Federation.

Tomlinson, B. (Ed.). (2011). *Materials development in language teaching*. Ernst Klett Sprachen.

Tyson, H. (1997). *Overcoming structural barriers to good textbooks*. National Education Goals Panel.

Appendix

Critical Thinking Evaluation Model (CTEM) was introduced in the thesis of Master of Philosophy in Linguistics titled "Evaluation of Exercises and Activities of English Textbooks at Secondary Level". The thesis was written in Riphah International University Faisalabad. This model is used to evaluate the exercises, learning outcomes, and activities of textbooks. A description of Critical Thinking Evaluation Model (CTEM) including the description and imperative verbs of each one of its levels is given below.

Level 1: Background Knowledge

Gaining information about a particular object is the fundamental level of critical thinking skills based learning outcomes. This level of critical thinking skills involves command, grip, education, proficiency, schooling, skill, accomplishment, enlightenment, and philosophy regarding a topic. Command on this level is crucial to move to the next level. Following is a list of imperative verbs to set and evaluate exercises, activities, objectives, questions, lesson plans, course outlines, and examination papers.

define	identify	recall	describe	order	outline
read	list	list the name	recite	show	reproduce
point	answer	recognize	memorize	underline	state
cite	write	circle	label	remember	record
repeat	match	quote			

Level 2: Apprehension

Apprehension is the next level and it aims to acquire information or knowledge about a particular subject. This level requires understanding, perception, realization, cognition, and discernment about the subject area and its nature. Imperative verbs used to assess the apprehension skills of students are as follows.

reorder	express	explain	compare	demonstrate	indicate
tell	convert	illustrate	summarize	paraphrase	rephrase
discuss	locate	review	defend	translate	contrast
extend	estimate	distinguish	report	interpret	retell
restate	generalize	choose	determine	respond	select

Level 3: Conceptualization

Under this level of critical thinking skills, learners invent new ideas using their command over background knowledge and apprehension (the two previous levels).

Concepts are vital to recreate, assemble, and rethink about something. Verbs which present the conceptual ability of students are listed below.

recreate	reason	provoke	represent	think over	resolve
assemble	precaution	consider	relate	gather	passionate
deduce	compare				

Level 4: Implementation

At this level of critical thinking skills, students become capable of applying knowledge, apprehension and concepts to sort out real-life problems and make their daily life activities more effective. At this level, students are able to use educational approaches, principles, theories, and procedures to deal with daily life activities and exercises. 'Implementation' level is evaluated using the following list of verbs.

apply	divide	change	find	use	solve
generalize	develop	act out	select	complete	utilize
calculate	schedule	rewrite	add	practice	manipulate
show	sketch	support	transfer	verify	prove
operate	employ				

Level 5: Anatomization

Knowledge, understanding, concept and implementation enable students to examine, analyze, break down, interpret, integrate, and draw conclusions about a subject. Verbs which show the ability of anatomization are enlisted below.

analyze	breakdown	categorize	classify	conclude	deduce
discriminate	diagram	distinguish	examine	infer	inspect
investigate	order	survey	modify	compose	verify
hypothesize	separate	propose	act out	formulate	value
blend	unite	relate	connect	differentiate	plan
generalize	organize	subdivide	initiate	detect	

Level 6: Critical Evaluation

Critical evaluation is helpful to judge, decide, argue, assess, and criticize by following a specific criterion. Following are the codes or verbs used to evaluate the 'critical evaluation' level of critical thinking skills.

appraise	debate	judge	choose	standardize	measure
prioritize	support	attach	contrast	test	select
rate	criticize				

Level 7: Creativity

Creativity enables students to create, originate, and integrate something new by utilizing background knowledge, apprehension, conceptualization, implementation, anatomization, and critical evaluation of the subject. Verbs which are useful to examine the creativity in a statement are listed below.

create	construct	manage	reorganize	systematize	plan
combine	collect	compose	invent	arrange	design
originate	develop	synthesize	make	relate	device
formulate	organize	modify	predict	reconstruct	propose
rearrange					

Level 8: Independent Learning / Self-directed Learning

By mastering all the above levels students become self-directed learners. At this stage, students inquire about the particular subject on their own. 'Independent learning' or 'self-directed learning' is analyzed using the following verbs.

analyze	transfer knowledge	self-monitor	self-regulate	take responsibility	self-assess
reflect	predict performance	set goals	research	generalize knowledge	formulate
inquire	frame questions	develop a learning plan	identify needs	create a plan	construct knowledge
describe how to					